# EXHIBIT A
# SCOPE OF WORK

## 1. SERVICES OVERVIEW

A. Southern California Coastal Water Research Project Authority (hereinafter referred to as the Contractor) agrees to provide to the State Water Resources Control Board (State Water Board), with services as described herein:

The Contractor shall work with the State Water Board staff developing a management framework to guide the design of Alternative Compliance Pathway (ACP) monitoring programs that optimize long-term project effectiveness.

B. The services shall be performed. at the Contractor's office located at: 3535 Harbor Blvd., Suite 110, Costa Mesa, California 92626-1437.

C. The services shall be provided during. Contractor's normal business hours, Monday through Friday, 8:00 A.M. to 5:00 P.M., excluding national holidays.

D. The Project Representatives during the term of this Agreement will be:

| State Water Resources Control Board | Contractor: Southern California Coastal Water Research Project Authority |
|---|---|
| Name: Chris Beegan, Contract Manager | Name: Kenneth C. Schiff, Project Director |
| Phone: (916) 341-5912 | Phone: (714) 755-3202 |
| Fax: (916) 341-5463 | Fax: (714) 755-3299 |
| e-mail: chris.beegan@waterboards.ca.gov | e-mail: kens@sccwrp.org |

Direct all inquiries to:

| State Water Resources Control Board | Contractor: Southern California Coastal Research Project Authority |
|---|---|
| Section/Unit: Division of Water Quality | |
| Attention: Chris Beegan, Contract Manager | Attention: Bryan Nece, Administrative Representative |
| Address: 1001 I Street, 15th Floor<br>Sacramento, CA 95814 | Address: 3535 Harbor Blvd., Suite 110<br>Costa Mesa, CA 92626-1437 |
| Phone: (916) 341-5912 | Phone: (714) 755-3201 |
| Fax: (916) 341-5463 | Fax: (714) 755-3299 |
| e-mail: chris.beegan@waterboards.ca.gov | e-mail: bryann@sccwrp.org |

The parties may change their Project Representative upon providing ten (10) business days written notice to the other party. Said changes shall not require an Amendment to this Agreement.

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## 2. WORK TO BE PERFORMED:

A. Background and Goals

ACP represent an increasingly attractive approach to stormwater management that involves planning for the installation of stormwater BMPs (best management practices) on a timescale of 20+ years. In California, considerable guidance is available to help watershed managers model the likelihood that an ACP project will achieve its long-term water-quality goals, but comparatively little guidance is available to help managers implement a routine field monitoring program that can effectively benchmark an ACP project's progress toward achieving its long-term water-quality improvement goals. There is no statewide guidance or clear-cut definitions for adaptive management decision-making criteria that can help inform how and when managers make course corrections and other adjustments based on monitoring program data.

This project will develop comprehensive, best-practices guidance for designing ACP monitoring programs and interpreting the data generated by these programs to address specific scenarios or questions. Some questions may be generic such as 1) are the BMPs effective at controlling pollutants in effluent or 2) is receiving water quality improving as a result of implementation of ACP and 3) tracking BMP performance. Other questions may be specific to a specific permit. This scope is intended to address the most common monitoring questions or scenarios encountered by permit writers to better inform the when and how of adaptive management. The insights will be organized into a ACP monitoring framework. The goal of the framework will be to empower managers to spend less time discussing the proper interpretation of their monitoring program data, and more time selecting and implementing adaptive management strategies that improve long-term ACP outcomes. Both regulatory and regulated parties will be able to use the framework to design – and evaluate the design of – ACP monitoring programs in an efficient, cost-effective manner. Significantly, the framework will not force all monitoring programs statewide to conform to a one-size-fits-all design. Rather, the framework will promote development of monitoring programs that are flexible enough to meet local priorities and needs, while also rigorous and comparable enough to maintain equity among various monitoring programs developed by Regional Water Quality Control Boards and Permittees.

B. Tasks and Deliverables

**Task 1: Form an advisory committee**

The contractor will assemble an advisory committee that will ensure the ACP monitoring framework is developed in a way that is fully responsive and relevant to management needs and priorities. The committee will include representation by regulatory agencies, regulated agencies, and non-governmental organizations. The advisory committee members will be approved by the contract manager.

Task 1 Deliverable:

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1.1 Proposed list of Advisory Committee members,
1.2 Minutes and list of attendees from each Advisory Committee meeting.

**Task 2: Define monitoring questions**

The contractor will develop a list of monitoring questions or scenarios that the ACP monitoring framework should address. This process will occur through a workshop process, with the advisory committee identifying management decisions associated with each monitoring question. Because the committee is likely to generate more questions than can be addressed by the ACP monitoring framework, advisory committee members will prioritize the monitoring questions they most want addressed.

Task 2 Deliverable:

2.1 List of advisory committee's prioritized monitoring questions for approval by the Strategy to Optimize Resource Management for Stormwater (STORM) Executive Sponsors.

**Task 3: Develop the ACP monitoring framework**

The contractor shall use the STORMs Executive Sponsor approved monitoring questions to guide development of best-practices guidance for designing ACP monitoring programs. For each prioritized question, the contractor will develop solutions that appropriately consider four main factors: (1) space and time scales, (2) indicators, (3) benchmarks and thresholds, and (4) management decisions based on these outcomes.

Task 3 Deliverable:

3.1 Guidance on how to design a monitoring program that can effectively benchmark an ACP project's progress toward achieving its long-term water-quality improvement goals.

**Task 4: Develop implementation support tools**

The contractor will develop statistical power analysis tools to support managers in the practical, real-world aspects of designing an ACP monitoring program including number of sites, number of samples per site, and replication for most cost-efficiently answering the monitoring questions from task 2. Implementation support tools will be aligned with the Water Boards Quality Assurance Project Plan to further ensure that monitoring data is of the appropriate quality to support decision-making.

Task 4 Deliverable:

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4.1 web-based power analysis tool, placed on the SCCWRP public domain website.

**Task 5: Case studies**

The contractor will supplement the monitoring framework by using two to four case studies depending upon the number of questions and scenarios addressed in each and the detail of the analysis, at minimum to illustrate appropriate technical approaches to data analysis. The case studies will provide the fundamental graphs and tables that should be produced, and insights into interpretation that can be used for future applications.

Task 5 Deliverable:

5.1 technical report illustrating appropriate data analysis using a minimum of two case studies.

**Task 6: Reporting**

The contractor will produce three reports for this project including quarterly reports, draft final report, and final report.

A. Not later than ninety (90) days after Agreement is executed and quarterly thereafter, during the life of this Agreement, the Contractor shall provide a written quarterly progress report to the Water Board Contract Manager describing activities undertaken, accomplishment of milestones, and any problems encountered in the performance of the work under this Agreement, and delivery of intermediate products, if any.

B. The Contractor shall submit to the Water Board Contract Manager for approval the reports containing the results of the work performed in accordance with the schedule of this Exhibit.

C. The Contractor shall submit to the Water Board Contract Manager a copy of the draft guidance and case studies report for review and comment in accordance with the schedule of this Exhibit.

D. The Contractor shall submit to the Water Board Contract Manager a copy of the final guidance and case studies report in accordance with the schedule of this Exhibit.

E. The Water Board Contract Manager shall submit final comments to the Contractor 30 days after the draft report is submitted to the Contract Manager by the Contractor.

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C. Task and Deliverables Schedule

| TASK NUMBER | TASK DESCRIPTION | DELIVERABLE | DUE DATE |
|---|---|---|---|
| 1.1 | Form an advisory committee | list of Advisory Committee members | 30 days after the Agreement is executed. |
| 1.2 | | Advisory Committee minutes and list of attendees | As necessary |
| 2.1 | Define monitoring questions | list of prioritized monitoring questions | Ten (10) months after Agreement executed. |
| 3.1 | Develop the ACP monitoring framework | manual that offers step-by-step guidance on how to design a monitoring program | Twenty (20) months after Agreement executed. |
| 4.1 | Develop implementation support tools | web-based power analysis tool | Twenty (20) months after Agreement executed. |
| 5.1 | Case studies | technical report illustrating appropriate data analysis | Twenty (20) months after Agreement executed. |
| 6.1 | Reporting | quarterly reports | 15 days after each quarter |
| 6.2 | | Draft final report | Twenty-two (22) months after |
| 6.3 | | Final report | Twenty-four (24) months after |

*If due date falls on a Saturday, Sunday or State holiday, deliverables shall be due the following business day.*